

What is claimed is:

1. A method for implementing an embedded system for mobile communication, the method comprising the steps of:

5 a) implementing a cross-development environment for a target system;

 b) implementing a network environment for communication between a host system and the target system;

 c) configuring a boot loader of the target system;

10 d) configuring a kernel of the target system, wherein the kernel is an embedded Linux kernel; and

 e) implementing a graphical user interface (GUI) environment for the target system.

15 2. The method as recited in claim 1, wherein the step a) includes the step of a-1) performing an initial compilation of a gcc package using a gcc bootstrap compiler by a gcc bootstrap compiler, wherein the gcc bootstrap compiler has a function of preparing header file and libraries.

20 3. The method as recited in claim 1, wherein, in the step b), communication between the host system and the target system is established based on a trivial file transfer protocol (TFTP) via an Ethernet.

25 4. The method as recited in claim 1, wherein, in the step c), the boot loader in the target system is implemented

by using a read only file system as as a root file system.

5. A Linux-based embedded system for mobile
communication comprises a central processing unit (CPU), a
5 synchronous dynamic random access memory (SDRAM), a flash
memory, a universal serial bus (USB) slave, a joint test
access group (JTAG), an universal asynchronous
receiver/transmitter (UART) and an Ethernet, wherein the
memory provides a storage place for a boot loader so that the
10 system boots by means of loading the memory with a boot image
and USB and Ethernet provides an interface between a host and
a target system.